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WRITTEN BY	:	F. MOSER

ANALYSIS OF METALS IN NINO EXTRACTS BY ATOMIC ABSORPTION

Nino extracts contain phosphoric acid and phosphates in high and varying concentrations. The accurate determination of major cations in Nino extracts, potassium, calcium and magnesium by atomic absorption is strongly impeded by the presence of phosphoric acid, even when lanthanum is added which should eliminate the interference. This prompted us to develop a clean-up procedure for Nino extracts before analyzing the metals by atomic absorption.

Clean-up Procedure:

The Nino extract sample (100 mg) is passed through a column containing AMBERLITE IR-120 (or DOWEX 50) cation exchange resin in the H^+ form. The resin is washed with three portions of 10 ml of distilled water until the pH of the effluent is neutral. The cations are eluted with 50 ml of 4 N HCl. The column is then ready for a new adsorption cycle after rinsing with distilled water to eliminate the concentrated acid. By this procedure, which is to some extent similar to the method described by Denson (1), all anions and all organic substances are eliminated from the sample before analysis by atomic absorption.

Service for other groups

15 tobacco lots (TLA) were analyzed for ISH.

REFERENCE

(1) Denson, J.R., J. Biol. Chem., 209, 233 (1954).

F. Moser

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